



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/939,860 | 08/27/2001 | Lynnwood C. Cook | COOK 3.2 | 3207 |
| 37190 | 7590 | 12/15/2005 | EXAMINER | |
| VARNUM, RIDDERING, SCHMIDT & HOWLETT LLP 333 BRIDGE STREET, NW P.O. BOX 352 GRAND RAPIDS, MI 49501-0352 | | | GELLNER, JEFFREY L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3643 | |
| DATE MAILED: 12/15/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------|-------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/939,860 | COOK, LYNNWOOD C. | |
| | Examiner | Art Unit | |
| | Jeffrey L. Gellner | 3643 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 September 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 4-13 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 4-13, 16, 17 and 19 is/are rejected.
- 7) Claim(s) 18 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Objections

Claim 7 is objected to because of the following informality:

In claim 7, line 2, the limitation of “shell fits in standard size temporary plastic pots” is unclear because there is no objective standard to judge which pots are temporary and of standard size.

Appropriate correction is required.

Claim Rejections - 35 USC §103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-7, 16, 10, 11, 8, 9, 12, 13, 17, and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Clendinning et al. (US 3,850,863) in view of Dedolph (US 4,196,543).

As to claim 4, Clendinning et al. discloses a biodegradable (from abstract) plant shell (from “transplant containers” of abstract) that integrally incorporates its own growing media (from “capability of disintegrating when planted in the field, and which upon disintegration possesses the quality of acting as a soil conditioner” of col. 3 lines 1-8), the peripheral wall having a hollow interior (from “transplant containers” of abstract) in which a plant is inserted, the wall having a substantial thickness (from “capability of maintaining its shape during the

initial growth period" of col. 2 lines 66-71) and being formed substantially exclusively of biodegradable constituents (abstract, from "about 97 . . . weight percent of naturally occurring biodegradable product of col. 7 lines 65-69) including an organic base material ("rice hulls" of col. 3 lines 42-53) comprising particular components ("rice hulls" of col. 3 lines 42-53) that are held together by a combination of pressure (from "compression molding" of col. 8 lines 32-37) and a water responsive glue ("caprolactone polymer" of abstract in that caprolactam is water soluble), the glue being such that it causes the shell to retain its shape for storage and handling but permits the shell to disintegrate rapidly in the presence of water (from "capability of maintaining its shape during the initial growth period" of col. 2 lines 66-71). Not disclosed is the shell being molded to permit root and water penetration. Dedolph, however, discloses a biodegradable shell (Figs. 16 and 18) molded to permit root and water penetration (from "rooting media [] intact and having roots therein" of col. 8 lines 36-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the shell of Clendinning et al. by having the roots and water penetrate the shell as disclosed by Dedolph so as to effect root air pruning (col. 2 lines 21-26) to ensure healthy root growth.

As to claim 5, Clendinning et al. as modified by Dedolph further disclose peat moss and manure (col. 3 lines 42-53). Not disclosed is top soil in the shell. Dedolph, however, discloses adding top soil to a shell ("true soil" of col. 4 lines 28). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the shell of Clendinning et al. by adding top soils as to effect better root growth.

As to claim 6, Clendinning et al. as modified by Dedolph further disclose time release fertilizer ("plant nutrients, fertilizer" Clendinning et al. at col. 8 lines 67).

As to claim 7, Clendinning et al. as modified by Dedolph further disclose the shell fitting stand pots used by nurseries (in that the shell can be made of the size that would fit in a pot).

As to claim 16, Clendinning et al. discloses a biodegradable (from abstract) plant shell (from “transplant containers” of abstract) that comprises a mixture of components (from col. 3 lines 19-2) including a base material of rice hulls (col. 3 lines 42-53) in combination with peat moss (col. 3 lines 42-53) held together by a combination of pressure (from “compression molding” of col. 8 lines 32-37) and a water soluble glue (“caprolactone polymer” of abstract), the mixture of components being mixed and compressed (from col. 8 lines 27-37) in the shape of a plant pot (“transplaner containers” of abstract), the wall disintegrates rapidly in the presence of water (from “capability of maintaining its shape during the initial growth period” of col. 2 lines 66-71), the walls of the shell being sufficiently thick and containing sufficient growing media to support plant growth until the plant becomes established in the ground (col. 2 lines 65-72), without the necessity for administration of additional soil conditioners or nutrients when the plant is first planted. Not disclosed is the shell being molded to permit root and water penetration. Dedolph, however, discloses a biodegradable shell (Figs. 16 and 18) molded to permit root and water penetration (from “rooting media [] intact and having roots therein” of col. 8 lines 36-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the shell of Clendinning et al. by having the roots and water penetrate the shell as disclosed by Dedolph so as to effect root air pruning (col. 2 lines 21-26) to ensure healthy root growth.

As to claim 10, the limitations of claim 16 are disclosed as described above. Not disclosed is the glue being guar gum or corn starch. However, because caprolactone polymer and either guar gum or corn starch were art-recognized equivalents at the time of the invention, to one of ordinary skill in the horticultural art, in those shells where the exact composition of the glue is immaterial, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute either guar gum or corn starch for caprolactone polymer in the shell of Clendinning et al. as modified by Dedolph.

As to claim 11, Clendinning et al. as modified by Dedolph further disclose the shell stable when dry (from col. 2 lines 54-65 of Clendinning et al.) and breaking down within a month in the presence of moisture (from col. 9 lines 12-23 of Clendinning et al. in that within a month is in the ambit of within two years).

As to claim 8, Clendinning et al. as modified by Dedolph further disclose the shell fitting stand pots used by nurseries (in that the shell can be made of the size that would fit in a pot) and consequently the plants in the pots.

As to claim 9, Clendinning et al. as modified by Dedolph further disclose the shell with water and nutrient characteristics to promote plant growth in new environments (from Clendinning et al. at col. 3 lines 1-18).

As to claims 12 and 13, the limitations of Claim 16 are disclosed as described above. Not disclosed is the shell having a water retention capacity of 20% or 30-40%. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the shell of Clendinning et al. as modified by Dedolph by having a water retention capacity of 20% or 30-40% depending upon the use it is needed (from Clendinning et al. at col. 7 lines 50-60).

As to claim 17, Clendinning et al. as modified by Dedolph further disclose rice hulls 50-100% by volume (from col. 7 lines 65-75 of Clendinning et al.).

As to claim 19, Clendinning et al. as modified by Dedolph further disclose the particles being less than $\frac{1}{4}$ inch in diameter (from “finely ground grain, and the like” of col. 3 lines 52-53).

Allowable Subject Matter

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 30 September 2005 have been fully considered but they are not persuasive. Applicant's arguments are: (1) neither Clendinning nor Dedolph disclose an invention that incorporates particulate organic base material in combination with organic ingredients and time release nutrients in sufficient quantities to support initial growth of the plant (Remarks page 2, last para.); (2) neither Clendinning nor Dedolph disclose a container that deteriorates rapidly in the presence of water (Remarks last line of page 2, 1st line of page 3); and, (3) neither Clendinning nor Dedolph disclose a structure that is held together by pressure and a water responsive glue (Remarks page 3, 1st line).

As to argument (1), Clendinning discloses an invention that incorporates particulate organic base material in combination with organic ingredients and time release nutrients in

sufficient quantities to support initial growth of the plant as stated in the rejections above. The nutrients in Clendinning's invention possess enough released nutrients because the plant grow through the "initial growth period" (Clendinning at col. 2 lines 66-72).

As to argument (2), Examiner considers Clendinning to disclose a container that be rapidly deteriorates, especially since the glue of Clendinning is water soluble.

As to argument (3), Clendinning discloses a structure held together by pressure and a water responsive glue from "compression molding" of col. 8 lines 32-37).

Conclusion

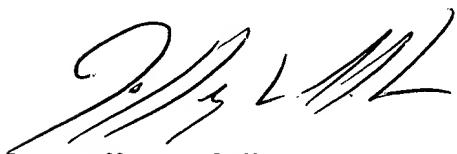
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off, if

attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey L. Gellner
Primary Examiner
Art Unit 3643